Distribution: Bharatipura (Agumbe).

SUMMARY

Five new taxa of desmids (Chlorophyceae) collected from freshwater ponds and lakes of Shimoga district (Karnataka State) during Nov.-Dec. 1978 are described.

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DASINEURA PSORALEAE (DIPTERA: CECIDOMYIIDAE) — A NEW GALL-MIDGE, INFESTING INFLORESCENCES OF *PSORALEA CORYLIFOLIA* LINN.[1]

R. M. SHARMA[2]

(*With thirteen text-figures*)

A new species of gall-midge, *Dasineura psoraleae* infesting the inflorescence of *Psoralea corylifolia* Linn. (Leguminosae) from Aurangabad (Maharashtra has been described and illustrated.

Genus *Dasineura* Rondani is represented in India by six species, Grover (1981). In November 1979 a large number of midges were bred from the inflorescence of *Psoralea corylifolia* Linn. at Aurangabad (Maharashtra) and were determined as assignable to the genus *Dasineura*. This midge is distinguished from the known species by many morphological characters. It does not cause any marked galls on the flower buds. The larvae fed on the ovary of the buds which ultimately fail to produce legumes. The larvae pupate in the flower-bud and not in the soil.

[1] Accepted July 1985.

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[3] Numbers in parentheses indicate length and breadth proportions, measured with the help of an oculometer.

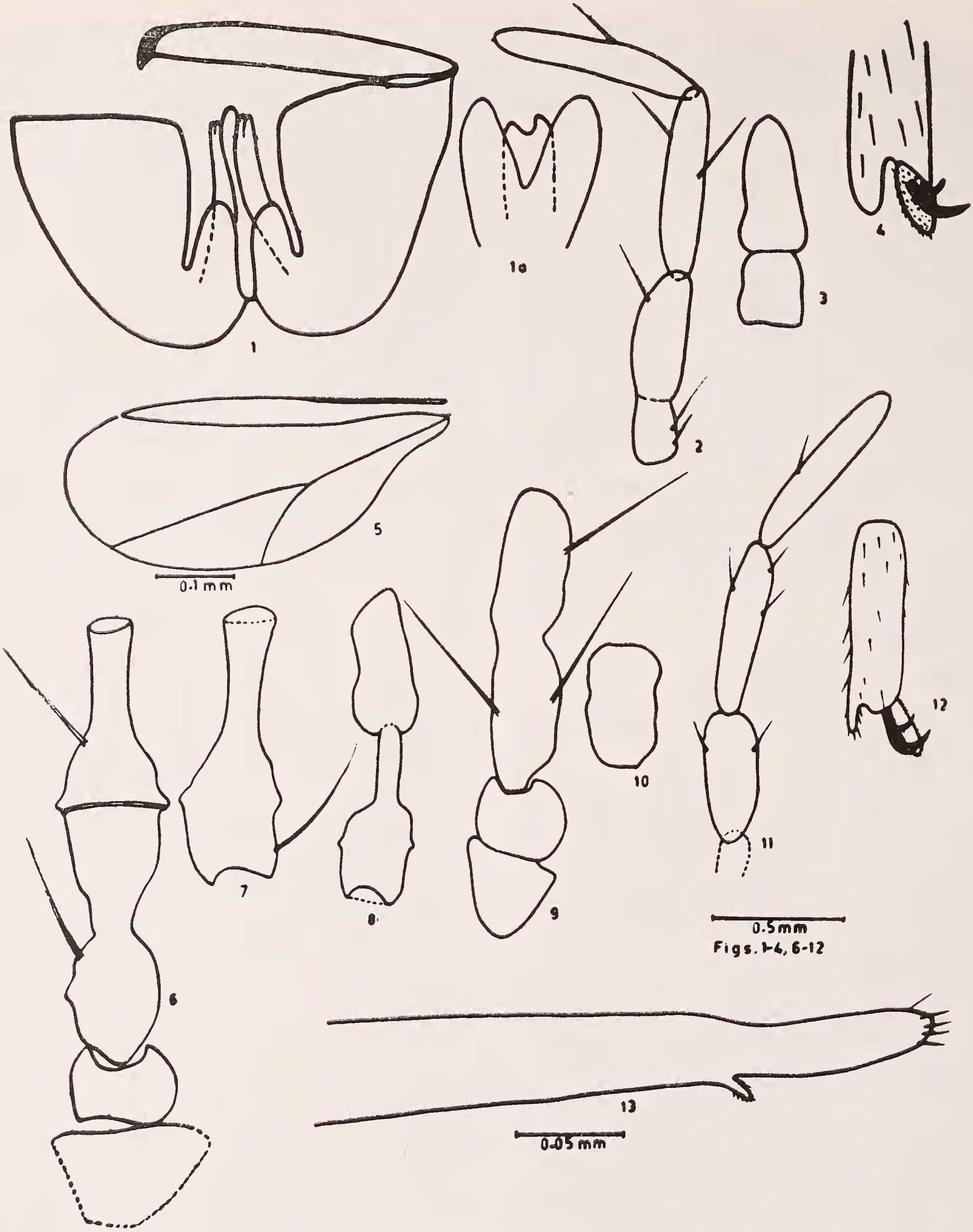
Dasineura psoraleae sp. nov. (Figs. 1-13)

MALE: Body 1.91 mm long, yellowish-brown; eyes confluent above; trophi normal; palpus 4-segmented, moderately long, sparsely setose; first segment (9:6)[3] cylindrical, length 1.50 × its maximum thickness; second segment (19:8) cylindrical, length a little more than 2.37 × its maximum thickness; third segment (27:6) cylindrical, longer and thinner than second, length 4.50 × its maximum thickness; fourth segment (30:5) cylindrical, longest and thinnest of all, 6.00 × as long as thick. *Antenna*: shorter than body with 2 + 12 to 2 + 14 segments (2 + 13 in holotype), segments with cylindrical enlargements and long apical stems; enlargements with a whorl of long setae, circumfila ring-like; scape (14:21) cup-shaped, wider than long; pedicel (13:14) subglobose;

third segment (26) confluent with and shorter than fourth, with a very small basal prolongation; enlargement (16:12) 0.61 the length of the segment and 1.33 × its maximum thickness, stem (7:6) 0.43 the length of the enlargement and a little less than as long as wide; fourth segment (37) with enlargement (21:22) 0.56 the length of the segment and 1.75 × its maximum thickness, stem (16:5) 0.76 the length of the enlargement and a little more than 3.00 x its maximum thickness; fifth segment (37) as long as and similar to the fourth, except apical stem (17) a little longer than the stem of the fourth segment; 6-13th segments gradually becoming shorter and thinner; penultimate segment (23) with an enlargement (13:10) 0.56 the length of the segment and 1.30 × its maximum thickness; stem (10: 3) 0.77 the length of the enlargement and 3.33 × its maximum thickness; terminal segment (19:8) shortest of all, conical, length a little more than 2.37 × its maximum thickness. *Wing*: (53:24) hyaline, 2.20 × as long as broad, costa sparsely hairy, vein R_1 joining costa a little beyond 0.25 the length of the wing; vein R_5 reaching costa well before the wing apex, interrupted at its union with the latter, vein *C*u forked. *Legs* long, moderately hairy, metatarsus (9) as long as terminal tarsal segment, second tarsal segment (72) longest of all, longer than the following segments combined together (65); claw (6) dentate on all legs, evenly curved, empodium shorter or as long as claw (10:10). *Genitalia*: light brown, sparsely setose, basal clasp segment (41:21) enlarged apically and narrowed basally with a heavily setose cylindrical, elongated basal lobe, length nearly 2.00 × its maximum width, shorter than terminal clasp segment, later (45:6) slender evenly narrowed, ending in a dark pointed tooth, length 7.50 × its maximum thickness; dorsal plate (20:20) as long as broad, deeply bifid, setose, tips rounded; subdorsal plate (17:9) shorter and narrower than dorsal plate, nearly 2.00 × as long as broad, shallowly notched in the middle, setose, lobes narrowly rounded apically; parameres bilobed, shorter than aedeagus, each lobe cylindrical, beset with fine setae laterally; aedeagus (28:2) rounded apically longer than dorsal and subdorsal plates, length 14.00 × its maximum thickness.

FEMALE: Body 1.56 mm long (including ovipositor). *Palpus*: 4-segmented, first segment short not distinct in the preparation; second segment (17:7) cylindrical, length 2.43 × its maximum thickness; third segment (23:6) longer and thinner than second, length nearly 4.00 × its maximum thickness; fourth segment (27:6) cylindrical, longest of all, 4.50 × as long as thick. *Antenna*: 0.33 the length of the body with 2 + 11 to 2 + 13 cylindrical, sessile segments, segments with a whorl of long setae, circumfila low; scape (11:12) cup-shaped; pedicel (11:13) subglobose, wider than long; third segment (21) confluent with and as long as fourth, enlargement (19:9) slightly more than 2.00 × its maximum thickness; fourth segment similar to the third; fifth segment (16: 9) shorter than fourth, 1.77 × as long as thick; distal segments gradually becoming shorter, penultimate segment (10:9) shortest of all, nearly as long as thick; terminal segment (17: 9) conical, longer than penultimate, length nearly 2.00 × its maximum thickness; wing, legs and claw as in male. *Ovipositor*: exserted, protractile, nearly as long as abdomen, terminal lobe (24:6) elongate, length 4.00 × its maximum thickness, tip beset with a few setae; ventral lobe very small.

Holotype ♂, *Allotype* ♀ and *Paratypes*: 6 ♂♂, 6 ♀♀ all dissected and mounted on slides ex inflorescence of *Psoralea corylifolia* Linn. Himayat Bagh, Aurangabad, India, 13.xi.1979, Coll. R. M. Sharma, (Many ♂♂ and ♀♀ in alcohol). All types are de-



Figs. 1-13. *Dasineura psoraleae* sp. nov.
1. Genitalia (Dorsal view) ♂; 1a. dorsal and subdorsal plates ♂; 2. palpus ♂; 3. terminal antennal segments ♀; 4. claw ♂; 5. wing ♂; 6. scape, pedicel, third and fourth antennal segments ♂; 7. fifth antennal segment ♂; 8. terminal two antennal segments ♂; 9. scape, pedicel, third and fourth antennal segments ♀; 10. fifth antennal segment ♀; 11. palpus ♀; 12. claw ♀; 13. ovipositor ♀.

posited in the collections of Zoological Survey of India, Pune, for the time being.

Sex-ratio: ♂ : ♀ = 32:48 (i.e., 38.75% ♂). This species is univoltine.

Parasites: Three different unidentified chalcid parasites were reared along with the midges.

Remarks: This species comes very close to *D. sesami* Grover and Prasad (1966) but differs in the number, length and proportions of antennal segments; empodium as long as claw; basal clasp segment with cylindrical basal lobe; aedeagus tip rounded; ovipositor half the length of the body and dorsal lamella 4.0 × as long as broad.

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